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MANAGERIAL EDUCATION OF NAVAL OFFICERS

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MANAGERIAL EDUCATION

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NAVAL OFFICERS

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by

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Submitted in partial fulfillment of

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IN

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ABSTRACT

In the Navy almost all officers, whether junior or senior, hold positions as managers. The economy and efficiency of the Navy's operations, therefore, depends on the ability of it's managers to plan, organize, staff, direct and control the organization.

A review is made of what noted authorities on the subject of management have said about the universality of management principles and the need to develop managers through education and training. Also, a review is made of the educational background of officer candidates as to the amount of management development they have received.

From these reviews, an attempt is made to show that although naval officers are well educated they are lacking in one important area. This is the area of management development, which is necessary if the Navy is to obtain the maximum performance from its officers.

A comparison is also made of the Navy's manager development program with those of industry and other services. From these are drawn conclusions and recommendations to assist in the managerial development of today's naval officers.

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"The man who strives to educate himself--and no one else can educate him--must win a certain victory over his own nature. He must learn to smile at his own idols, analyze his every prejudice, scrap if necessary his fondest and most consoling belief, question his presuppositions, and take his chances with the truth."

Everett Dean Martin

CHAPTER I

INTRODUCTION

Purpose

The purpose of this study is to determine the present level of managerial education in the Navy, and to ascertain if it is sufficient to achieve competent managerial and supervisory officers. Further, to make recommendations as indicated by the study.

Scope

The Navy with well over 650,000 officer and enlisted personnel uses its officers to staff a large range of skills and positions even larger than the largest corporations. Today the Navy has nearly 77,000 officers, virtually all of whom presently hold managerial positions.

To develop a naval officer's ability in this regard, time and effort must be spent to insure that these officers become competent supervisory and managerial people.

Today, it is common place for organizations to train their personnel; the choice is not whether to train or not to train, it is how and when to train. Certainly the efforts of the Navy to train managers should be no less than that of progressive industry. Industry is well aware of the value of managerial education and

this interest has been increasing steadily. It spends one billion dollars a year on upgrading its managers. The Navy is in no better position to attract qualified managers than is industry and perhaps is in a disadvantageous position. Since its needs for these people are as great or maybe even greater, the Navy must realize that leaving managerial training up to chance, with no direction or plan, will be inefficient and uneconomical. It is important that the Navy have a well rounded career program to enhance the management development of all officers. The Navy is in a peculiar position in that it cannot recruit qualified managers for top positions, because of rank structure and longevity, it is necessary to choose all management positions, lower, middle and top from the available officers of the rank and seniority that the job calls for.

Method

The method of research was a critical review of the literature by prominent authorities and a review of managerial development programs today.

Definition of Terms Used

Education is the process that prepares one to think independently and critically by teaching one to formulate concepts by rational means. It is the formal process of teaching and learning.

Training is the process that aims to improve the work effectiveness of an individual for a particular job. It is specific rather than general. It deals with specific problem areas, specific methods, specific techniques.

Management Education. This education concentrates on the fullest possible development of the motives, attitudes, and habits that will prepare the manager to inform himself and think for himself. Stressing the role of the manager by emphasizing:

1. The importance of being informed, of basing decisions, actions, and opinions on accurate facts, of being able to view his functional specialty as part of the entire management process. Capacity to evaluate the impact of decisions on the personnel who must carry out these decisions.

2. Knowledge of where and how to acquire information.

3. Ability to appraise, relate, and integrate facts in order to form valid judgments.

4. The importance of being creative as well as analytical. In contrast to training, education seeks to develop an individual capable of improved performance and motivated to improve his organizational environment within the organization as a whole.

Manager. A manager is one who controls or directs an organization or group. He is one who establishes objectives,

motivates, develops communication, maintains cooperation, coordinates, develops subordinates, and makes decisions. He gets things done through people.

Management has certain functions that every manager must exercise; planning, organizing, staffing, directing, and controlling. It is the process of utilizing men, finances, material and facilities to accomplish the objectives and tasks of an organization and hopefully to achieve these ends with a maximum of efficiency and a minimum of friction.

Leader. A leader may be defined in terms of what he does or the traits that he possesses. Some have held that if a man possesses traits such as adaptability, calmness, courage, dependability, earnestness, tactfulness, truthfulness,--etc., he will be a good, if not a great, leader. The other approach, and the one used in this paper, can be stated simply: a person who influences and directs others is a leader. The art of leadership involves the capacity to influence others to achieve the goals of the organization willingly and without resorting to force and authority.

Assumptions

1. Most naval officers are managers and occupy managerial positions.

2. Naval Officers do not have an intuitive management ability. This capability must be developed through education, training, and experience.

CHAPTER II

REVIEW OF THE LITERATURE

Literature of Management Development

The growing need for greater education is today a fact of life. Each year a greater percentage of our youths are attending school. This increase has not ended with high school but has gone on into the college level and even beyond into the graduate level. With the increasing complexity of our times and the rapid changes in technology, one could not expect less.

This increasing desire for higher education did not fully begin its rapid development until the post war years following World War II. It was also at this time that a growing interest was developed in the education and training of business executives.[1]

The development of scientific management may be traced back to Moses[2] and perhaps even further. As defined, management is the science of getting things done through people, and thus it may have had its beginning with the centralization and interdependency of society.

[1]Harold Koontz and Cyril O'Donnel, Principles of Management, (New York: McGraw-Hill Book Company, Inc., 1959), pp. 16-17.

[2]Exodus 18:17-26

Yet it was not until around the turn of the twentieth century that the principles of scientific management were formalized. This was brought out by many different individuals, two of whom are of particular importance for they formalized and applied principles to the process of management. One was F. W. Taylor, referred to as the "Father of Scientific Management", who worked mostly with the shop level and applied principles to the problems of management.[3] The second was a French industrialist, Henri Fayol, who wrote some 14 general principles of management.[4] His thesis on the universality of management principles points out that these principles apply to all types of organizations and not just business alone. In defining administration Fayol states:

> The meaning that I have given to the word administration and which has been generally adopted, broadens considerably the field of administrative science. It embraces not only the public service but enterprises of every size and description, of every form and every purpose. All undertakings require planning, organization, command, co-ordination and control, and in order to function properly, all must observe the same general principles. We are no longer confronted with one which can be applied equally well to public and to private affairs.[5]

[3] Koontz, op. cit., pp. 21-22.

[4] Henri Fayol, General and Industrial Management, (London: Sir Isaac Pitman and Sons, Ltd., 1959), pp. 19-20. Translated from the French Edition (Dunod) by Constance Storrs.

[5] Luther Gulick and L. Urwick, Papers on the Science of Administration, (New York: Institute of Public Administration, 1937), p. 101.

Fayol was concerned with more than just the universality of scientific management principles. He was aware that such principles become more important as one climbs the management ladder.

> Whatever the function being considered, the chief characteristic of the lower employees is the special ability appertaining to the function (technical, commercial, financial, etc.) and the chief characteristic of the higher employees is administrative ability. Technical ability is the most important quality at the bottom of the industrial ladder and administrative ability at the top.[6]

L. Urwick in a paper "The Function of Administration" in which he discusses the writings and feelings of Fayol points out the need for training.

> But Fayol showed beyond question, what Taylor himself appreciated, that better management is not merely a question of improving the output of labor and the planning of subordinate units of organization, it is above all a matter of closer study and more administrative training for the men at the top.[7]

Taylor, who did not know of Fayol, would have agreed with him on the universality of management principles. Although he expressed himself in somewhat different terms, this is perhaps mostly due to the fact that he was more concerned with the shop

[6] Ibid., p. 120.

[7] F. W. Taylor, The Principles of Scientific Management, (New York: Harper and Brothers, 1911), p. 129.

level of management. In the introduction of his paper on the "Principles of Scientific Management" Taylor points out three reasons for writing the paper. The third reason is:

> To prove that the best management is a true science, resting upon clearly defined laws, rules, and principles, as a foundation. And further to show that the fundamental principles of scientific management are applicable to all kinds of human activities, from our simplest individual acts to the work of our great corporations, which call for the most elaborate cooperation.[8]

Like Fayol, Taylor was also concerned with the future and training of managers. Again, in the introduction to his paper, Taylor points this out.

> In the past the prevailing idea has been well expressed in the saying that "Captains of industry are born, not made", and the theory has been that if one could get the right man, methods could be safely left to him. In the future it will be appreciated that our leaders must be trained right as well as born right, and that no great man can (with the old system of personal management) hope to compete with a number of ordinary men who have been properly organized so as efficiently to cooperate.[9]

Thus, as can be seen, two early writers on the subject of scientific management, although writing at about the same time and separated by many miles and the Atlantic Ocean and without knowledge of each other, agreed on the universality of management principles and the need for training managers.

[8] Ibid., p. 7.

[9] Ibid., pp. 6-7.

There are, however, no quick solutions, panaceas or otherwise short cuts to the making of a manager. This, like the acquiring of any scientific skill, comes from education, training, practical experience and hard work. Urwick noted that:

> Administrative skills cannot be bought. There are no hints and tips and short cuts. It has to be paid for in the only currency which is sound in this market-hard study and harder thinking, mastery of intellectual principles reinforced by genuine reflection on actual problems, for which the individual has real responsibility.[10]

From the writings and speeches of great men like Taylor and Fayol has developed a body of knowledge, based on principles, that is receiving increasing attention from educators, businessmen, and organizational leaders throughout the country. This attention is due to the increasing awareness of our leaders that the continued survival and growth of our business enterprises depends primarily on the skills, knowledge and judgment of today's managers. It thus became apparent, after World War II, that the education and development of managers could no longer be left to chance, but must be organized through a comprehensive, planned, and continuing program of manager education and training.[11]

[10]L. Urwick, The Elements of Administration, (New York: Harper and Brothers Publishers), p. 15.

[11]George C. Houston, Manager Development, (Homewood, Illinois: Richard D. Irwin, Inc., 1962), pp. 20-21.

Many books and articles have been published emphasizing the need for greater education and training. They have, however, not all agreed on the methods and techniques to be used to increase the managers' ability. This disagreement stems mostly from the growing pains that the scientific management educational system has gone through. Like any science, there were some skeptics at first, but as the body of knowledge and the demand for professional managers increases and the results observed, this will die away.[12]

Business as well as other organizations have been trying to increase the performance of their managers. The realization of the need for increased managerial effectiveness is pointed out by Harold F. Smiddy, well known contributor to manager development.

> Managers today do not have any real choice between doing manager development or not doing it. The only realistic choice is between being overwhelmed by this part of their job or being master of it. The cumulative complexities, which have come to business in the last hundred years, have steadily increased the risk of managing by ear, until such a policy represents today a luxury of irresponsibility which is neither sensible or socially permissible.[13]

[12]Ibid., pp. 6-14.

[13]Harold F. Smiddy, General Electrics Philosophy and Approach for Manager Development, General Management Series #174, (New York: American Management Association, 1955).

The cry for increased managerial development has not been left to business leaders alone. Many in the Navy have also echoed this need. Harold R. Tall, Commander, U. S. Navy, writing on the problem of the image of the military manager concludes:

> The basic solution can be achieved by education and by improving the managerial climate with greater emphasis on managerial achievement.[14]

Former Secretary of the Navy, Fred Korth, in an article "The Challenge of Navy Management"[15] points out some of the needs, problems and developments of Naval management. Although the former Secretary was referring mostly to the departmental level of the Navy, it was in a later issue of the Proceedings that Bobby E. Smith, Lieutenant, U. S. Navy, pointed out the need for greater management emphasis on the operational level and the absence of such emphasis in the Secretary's report.

> I further contend that efficiency will deteriorate if the managerial processes at the Departmental level alone are evaluated. Why not manage the operational level of the Navy - the ships, the aircraft squadrons, and the shore bases the same way that any profitable and efficient business is managed? It is my conviction that good manage-

[14]Harold R. Tall, "The Military Manager, The Image and the Man" United States Naval Institute Proceedings, (August, 1962), p. 63.

[15]Fred Korth, "The Challenge of Navy Management", United States Naval Institute Proceedings, (August, 1963), p. 26.

ment processes are neglected, if not completely ignored, at the operational level of the Navy.[16]

These cries for greater management development programs have not gone completely unheard. Our colleges and universities have stepped up their executive development programs considerably in the past 10-15 years. One of note has been the increase of residential programs being offered by universities. Prior to 1950 there were only four such programs offered whereas in 1961 there were over 40.[17]

The demand for management development programs will continue to increase as more of our organization leaders become aware of the advantages and as the old ideas of "a born manager" pass away. This increase was most recently noted in "The Wall Street Journal". The article points out that more and more companies are demanding management training services. UCLA alone is running double the training programs this year over last year, and is having trouble keeping up with the demand. University of Southern California reports 754 executives completed

[16]Bobby E. Smith, "A Management Primer for Squadron Commanders" United States Naval Institute Proceedings, (February, 1964), p. 84.

[17]George C. Houston, Manager Development, (Homewood, Illinois: Richard D. Irwin, Inc., 1961), p. 45.

courses this year up from 100 in 1961.[18]

[18]News item in The Wall Street Journal, May 18, 1965.

CHAPTER III

NAVY POSTGRADUATE MANAGEMENT DEVELOPMENT

History

Managerial education and training has been growing at an ever increasing rate in our civilian colleges and universities for some time and most notable in the last two decades. It is little wonder then, that the Navy has also increased its managerial education and training. The backbone of the Navy's program is conducted at the Naval Postgraduate School and other civilian contract colleges and universities. Thus, this chapter will not try to develop the historical developments of managerial education and training within all the facilities utilized by the Navy Department, but only that conducted at the Naval Postgraduate School and civilian instituations that are available to naval officers. Only the significant developments and the present education and training facilities will be covered.

Perhaps the first managerial training offered at the post-graduate level was in 1933 with the establishment of three courses in Organization and Administration at the Naval

Postgraduate School.[1] These courses were offered to acquaint the student officer with the principles and functions of naval organization and adminstration.[2] By 1942 this had been increased to six organization and administration courses.[3]

In 1937 a Business Adminstration curriculum was offered at the Babson Institute. This curriculum was of a one year duration.[4] With the start of World War II, however, this curriculum was dropped at Babson and has not been reinstituted.

Harvard University has aided managerial education in the Navy for sometime. The first group to attend the Business Administration curriculum was in 1940. This at first was a two year curriculum, but a year later, 1941, it was reduced to just one year. This group, however, consisted almost entirely of Supply Corps Officers.[5]

[1]United States Naval Academy Postgraduate School, Catalogue Academic Year 1933-1934, (Annapolis, Maryland, June 1933), p. 88. The school was started in 1909 at the United States Naval Academy, Annapolis, Maryland. On 22 December 1951 the school was disestablished at Annapolis, and established at Monterey, California and the word Academy was dropped from the name.

[2]Ibid. Catalogue Academic Year 1935-1936, p. 79.

[3]Ibid. Catalogue Academic Year 1942-1943, p. III-88.

[4]Ibid. Catalogue Academic Year 1937-1938, p. 127.

[5]Ibid. Catalogue Academic Year 1941-1942, p. V-10.

World War II slowed the growth of managerial education in the Navy. With the curtailment of hostilities the Navy increased its educational facilities. By 1947 several curriculums were offered at different universities. A fifteen month curriculum in Personnel Administration and Training was given at Ohio State, Northwestern and Stanford. Harvard and Stanford had a two year course in Business Administration, and a one year curriculum in Management and Industrial Engineering was given at Rensselaer Polytechnic Institute.[6] In addition, in 1947, a 13 week course in Advanced Management was given twice a year at Harvard's Graduate School of Business Administration.[7] This particular course was offered to a few selected Commanders and above.

The Personnel Administration and Training curriculum was dropped at Northwestern in 1950 and decreased from 15 to 12 months at Ohio State and Stanford in the same year. However, an additional Business Administration two year curriculum was offered at Columbia University in 1952.[8]

[6] Ibid. Catalogue Academic Year 1947-1948, p. 241.

[7] Ibid.

[8] Ibid. Catalogue Academic Year 1952-1953, p. 16.

The two year Business Adminstration curriculum at Columbia was dropped in 1956 and a one year Business Administration curriculum was offered at Michigan.[9]

Leaders in the Navy had been urging for some time the establishment of a Navy Management School. As a result a conference was held in May 1956 in which representatives of all the Bureaus and Offices of the Navy discussed the idea of a Navy Management School. The unanimous and enthusiastic endorsement by the representatives as well as the Bureau Chiefs, the Secretary and Assistant Secretaries of the Navy, prompted the Chief of the Bureau of Naval Personnel to write a letter on 6 June 1956 establishing the Naval Management School as a component of the Naval Postgraduate School at Monterey, California.[10]

Curriculum suggestions for the Navy Management School were solicited from all the Bureaus and Offices of the Navy. From

[9] Ibid. Catalogue Academic Year 1956-1957, p. 23.

[10] Statement by William H. Church, Professor, U. S. Naval Postgraduate School, Monterey, California. Personal Interview, July 1965. Professor Church is the Senior Professor in the Management Curriculum and as a Management Engineer for the Secretary of the Navy was the principal sponsor of the concept of a management education program for naval officers in 1955-1956. In 1956 the Chief of Naval Personnel requested his services from the Secretary of the Navy to assist in the establishment of the Navy Management School and design its curriculum and he has continued to work in this area from that time to date. See Appendix III for additional data.

these recommendations a basic core course was established to be given to all officers which would have as some of its major teaching objectives the creation of:[11]

1. Ability to orient quickly to new or different management environments or new management situations.

2. Ability to diagnose significant management problems and to recognize areas of strength as well as weakness.

3. Ability to build support for new ideas up and down the chain of command and to sell improvements.

4. Ability to achieve constructive results despite obstacles thrown in one's path.

5. Ability to recognize the possibility of application of advanced industrial management or operational practices to the specialized industrial needs of the Navy.

6. Ability to recognize management problems stemming from out-moded policies that may require considerable time to correct and ability to recognize management problems susceptible to correction within one's tour of duty.

7. Ability to recognize ways and means of using established Navy systems and procedures to accomplish desired results.

[11] Ibid.

8. Ability to apply acceptable and appropriate managerial criteria and administrative procedures in organizing for action.

The first classes to attend the school included only Supply and Civil Engineering Corps officers, however, in August of 1957 the input was extended to include officers from both Line and Staff Corps.[12]

The first curriculum consisted of a five month course starting in August and January. In addition, a six week summer course in the Elements of Management and Industrial Engineering was given. This summer course was a basic course in Executive Development and was designed primarily for officers in the Engineering School, but also included a substantial number of officers sent by the different Bureaus and Offices of the Naval Establishment.[13] For many years classes consisted of from 60 to 75 students.

The Management School was expanded in 1960 to a ten month course at the graduate level, thus awarding a Masters Degree to those who successfully completed the requirements. In 1964 the curriculum was again expanded to a full twelve month course where it is maintained today.[14]

[12] Ibid., Catalogue Academic Year 1957-1958, p.6.

[13] Ibid. Catalogue Academic Year 1958-1959, p. 164.

[14] Ibid. Catalogue Academic Year 1960-1961, p. M-3.

Today

Presently, in addition to the one year course at the Naval Postgraduate School, the Navy offers managerial education in Management (Data Processing) for one year and a two year curriculum in Operations Analysis. A four week summer course in the Elements of Management is also given. In addition, several civilian institutions also provide managerial education facilities for the Navy as follows:[15]

Business Administration	one year	Harvard Stanford
Financial Management	one year	George Washington
Management and Industrial Engineering	one year	R.P.I.
Petroleum Administration and Management	one year	S.M.U.
Petroleum Management	16 months	University of Kansas
Procurement Management	one year	University of Michigan
Systems Inventory Management	two years	Harvard
Transportation Management	one year	Michigan State

[15]Ibid. Catalogue Academic Year 1964-1965, p. 48.

CHAPTER IV

A STUDY OF MANAGEMENT EDUCATION TODAY

The Navy and civilian industry, as has been pointed out in Chapter II, are very concerned about the management education that their personnel are receiving. In this chapter an attempt is made to delineate the management education that is being presented to naval officers and to describe the attempts of other services, civilian government agencies, public administration and business and industry to educate their managerial personnel.

NAVY EDUCATION

This section is divided into three parts, first Officer Candidate education, second in-service training and education and lastly senior officer education.

Officer Candidate Education

U. S. Naval Academy. The four-year program of the Naval Academy is undergraduate in scope and leads to a Bachelor of Science Degree. The basic curriculum consists of 160 semester hours during the four academic years. It emphasizes fundamental education in the humanities and social sciences, physical sciences and engineering, and in naval professional studies. It stresses basic and enduring principles to provide a background for effective leadership in an era of rapid development. The basic

undergraduate education is designed to serve as a foundation for later specialization in varied fields of naval interest. The successful accomplishment of this function requires the development of the midshipman in three closely inter-related parts of the curriculum.

1. The development of the midshipman's military character, and dedication to lifetime service in the Navy.

2. The training required to qualify the midshipman as an officer capable of assuming his duties aboard ship immediately upon graduation.

3. Education in the sciences, engineering and humanities.[1]

All three parts of the curriculum are of major importance and no one part can be overlooked or neglected. Within the limitations of this four year curriculum, each part must compete with the others for the midshipman's time, energy, and psychological orientation.

Several basic facts must be kept in mind. These include:

1. The Naval Academy is uniquely a military institution with the specific function of preparing career officers for service in the Navy. Its curriculum cannot be considered on the same terms as

[1] The Curriculum Review Board Report, United States Naval Academy, 1959, United States Naval Academy (Annapolis, Maryland, 1959), p. 2.

those of engineering schools, liberal arts colleges, or universities. The adequacy of the Naval Academy curriculum must be judged in relation to its mission.

2. An inspiring faculty and a good academic environment are as important as the content of the curriculum in the education of a midshipman.

3. It is necessary to retain a reasonable balance among the military, progressional, and academic portions of the curriculum.

4. The Naval Academy course is a four year program.

5. The curriculum must be re-examined constantly in this era of rapidly changing technological development.[2]

Within the past year the Naval Academy has incorporated a management program in its curriculum. This program can lead to either a minor or a major in management. All students are now required to take a course in Management Principles which is an introduction to the field of management with emphasis on processes involved in the performance of fundamental managerial functions. The minor program provides instruction in Financial Management, Material Management, Personnel Management, Advanced Case Studies, and Economics of Defense Planning.

[2] Ibid. pp. 2-3.

The major program is more comprehensive. It includes all those subjects included in the minor program, and additional courses of study in Matrix Theory, Operations Analysis, Statistics and Advanced Economics.[3]

This program commences in the Plebe year. At present there are 200 cadets enrolled in the program and it is expected that the number will grow to 600 in the near future.

About one-half of the instruction time is devoted to Physical and engineering sciences, one-quarter to social sciences and humanities, and one-quarter to naval science.[4,5]

U. S. Naval Reserve Officer Training Corps Program.

The NROTC program had its beginning in 1925 with the purpose to provide well educated junior officers for the U. S. Naval and Marine Corps Reserve.[6] Presently there are 53 NROTC

[3]Telephone Interview, Cdr. Richard Fuller, USN, U. S. Naval Academy, Annapolis, Maryland, July 1965.

[4]The United States Naval Academy Catalogue of Information 1964-1965, United States Naval Academy (Washington: U. S. Government Printing Office, 1964), pp. 1-59.

[5]Catalogue of U. S. Naval Training Activities and Courses, Under Management Control of the Bureau of Naval Personnel (Washington, 1962), p. B-2.

[6]Personnel Administration in the Navy, Bureau of Naval Personnel (Washington: U. S. Government Printing Office, 1955), p. 22.

units located throughout the country. The present mission of the NROTC is to provide a permanent system of training and education in essential naval subjects at civilian educational institutions from which a source of qualified officers may be obtained for the Navy and Marine Corps.

Any accredited curriculum as prescribed by the member institutions leading to a degree, except in some prescribed fields such as medical, animal husbandry, etc., is included in the scope of instruction.[7] Consequently the courses of study include a wide range of subjects. It is impossible to describe the many subjects taught in each of the 53 institutions. It is assumed, however, that the courses vary considerably and in some cases will include a liberal exposure to management subjects and in other cases have little or no management education with the bulk of the students falling somewhere in between.

In addition to the regular academic study, candidates are required to take a U. S. Navy Standard Curriculum for Naval Reserve Officers Training Corps.[8] This curriculum includes areas

[7] Catalogue of U. S. Naval Training Activities and Courses, op.cit., pp. B-3, B-4.

[8] U. S. Navy Standard Curriculum for Naval Officer Training Corps (Washington, D. C.: Bureau of Naval Personnel, 1964), pp. 1-213.

of naval organization, seamanship, communications, navigation, weapons, machinery, damage control, military justice and leadership.[9]

U. S. Naval Officer Candidate School. The purpose of this program is to provide a ready and adequate reserve of qualified young officers. The young men selected for this program are trained at the U. S. Naval School Command, Newport, Rhode Island for 16 weeks.[10] Upon successful completion of this training, candidates are appointed in the Naval Reserve. An applicant for this program must be a graduate of an accredited college or university with a baccalaureate or higher degree.[11]

Young men from colleges and universities, which are accredited institutions, are eligible for this program. Literally hundreds of institutions are represented by OCS students and the courses of study include every imaginable field, consequently no grouping of subjects is possible to describe the typical OCS graduate. Like the NROTC program, some OCS students may have had considerable management education while others will have

[9]Ibid.

[10]Catalogue of U. S. Naval Training Activities and Course, op. cit., p. B-10.

[11]Personnel Administration in the Navy, op. cit., p. 23.

little or none. The rest fall somewhere in between.

The course of instruction given at OCS encompasses areas of Naval organization, seamanship, communications, navigation, weapons, machinery, damage control, military justice and leadership.

Reserve Officer Candidate Program. This program is intended to augment other means of reserve officer procurement and to maintain a continuous flow of newly commissioned Reserve Officers in numbers to keep the Naval Reserve at the authorized personnel strength. Candidates are required to attend two summer courses of about eight weeks each at the Reserve Officer Candidate School. Candidates are not paid during the academic year and are not required to take any additional studies in college as a result of the enrollment.[12] The candidates may pursue any educational course as long as it leads to a baccalaureate degree. Like the NROTC program and OCS program no typical academic background can be developed to represent the ROC.

The subjects taught include orientation, seamanship, communications, navigation, weapons, machinery, damage control,

[12] Personnel Administration in the Navy, op. cit., p. 23.

military justice, and leadership.[13]

U. S. Naval School Pre-Flight. This program has been established to meet the Navy's increasing need for aviators. Applicants must have completed two academic years toward a baccalaureate degree at an accredited college or university or have the service accepted equivalent. Pilot training is for approximately 18 months. Successful candidates receive their wings and a commission in the Naval Reserve.[14]

Naval Science Departments in the U. S. Merchant Marine Academy and State Maritime Academies and Courses.

The U. S. Merchant Marine Academy, Kings Point, New York, conducts a standard four-year curriculum as prescribed by the U. S. Maritime Commission, of which approximately 15 per cent is instruction in Naval Science. In addition to the academy at Kings Point, four state schools conduct three or four-year courses of instruction as prescribed by the legislatures of the individual states, of which approximately 15 per cent is instruction in Naval Science.

The mission of the Department of Naval Science at each of these schools is to provide a permanent system of education and

[13]Catalogue of U. S. Naval Training Activities and Courses, op. cit., p. B-13.

[14]Personnel Administration in the Navy, op. cit., p. 23.

training in essential naval subjects. This is to provide qualified officers for the Naval Reserve.[15]

Among the courses offered at Kings Point, which are management oriented, are Economics, 9 semester hours for deck officers and 3 semester hours for engineering officers. In addition, engineers receive 2 semester hours of Personnel Relations and deck officers 3 semester hours. The naval science subjects taught are Naval Operations, Naval Orientation, Naval History, Naval Weapons, and Naval Administration.

The course in Naval Administration is divided into three phases. The first acquaints the prospective junior officer with the importance of his place in the naval structure and acquaints him with the accepted procedures he may use in administrative matters. Phase two is Military Justice. Phase three teaches the prospective officer various ways of arriving at a solution and at the same time provides valuable information concerning Navy life.[16]

Navy Enlisted Scientific Education Program. This program is available to highly qualified enlisted personnel. It is

[15]Catalogue of U. S. Naval Training Activities and Courses, op. cit., p. B-5, B-6.

[16]Course of Instruction at the United States Merchant Marine Academy, Kings Point, New York, (Kings Point: U. S. Department of Commerce, 1964), pp. 16-41.

an uninterrupted four-year college education program including summer sessions. There are 22 colleges and universities where NESEP students are educated.

The purpose of the program is to provide education for highly qualified personnel in the scientific and engineering fields to cope with the problems and complexities of modern warfare.[17] Students maintain their enlisted status while enrolled in this program. Upon completion of the course of instruction to the baccalaureate level, graduates select either the Officer Candidate School, Newport, Rhode Island, or the Naval School Pre-Flight, Pensacola, Florida, and upon successful completion are commissioned in the Regular Navy.

Any attempt to establish the courses taken in this program would be beyond the scope of this paper, consequently, it has not been possible to describe the management education that students receive. The training they receive at Officer Candidate School and at the Naval School of Pre-Flight has been discussed.

U. S. Naval School Officer, Women (Officer Candidates).

The Officer Candidate Program (Women) is open to female college graduates and college juniors. Applicants selected for

[17] Catalogue of U. S. Naval Training Activities and Courses, op. cit., pp. B-9, B-10.

this program receive eight weeks of basic training and indoctrination. Upon completion of the basic training, candidates receive a commission in the Naval Reserve.[18]

Course instruction is given in the areas of naval organization, personnel administration, history, leadership, physical education, and military drill. Applicants are not restricted to any particular courses of study in college.[19]

Other Programs. In addition to the programs described, there are some other programs which provide junior officers for the Navy. These programs represent a small portion of the overall input and are listed below for informational purposes.

Direct Appointments.

Warrant Officer Program.

Limited Duty Program.

Integration Program.

Medical Service Corps Program.[20]

[18]Personnel Administration in the Navy, loc. cit.

[19]Catalogue of U. S. Naval Training Activities and Course, op. cit., p. B-15.

[20]Personnel Administration in the Navy, op., cit., pp. 22-26.

In Service Training and Education.

Local Programs. During the past few years, major commands have instituted management education programs covering a wide field of topics. Some of this training is in a specific area while other portions are of a general nature. The context of this training is so varied, it is virtually impossible to characterize or categorize the training into any kind of grouping. The context of the instruction has been left up to the local command which has developed a program of management training to suit its local needs. Training at the station level and at the shipboard level includes numerous subjects, many of which cannot be specifically called management training but which include management material within the training program. This, of course, is desirable for management techniques should be presented wherever and whenever they can to accomplish a specific goal.

U. S. Naval Postgraduate School. At this school a program has been established for the advancement of the education of naval officers in general and technical subjects, according to the Navy's need. The school consists of Engineering, General Line and Naval Science and Navy Management curriculum (Business Administration and Economics).

The Secretary of the Navy has defined the mission of the Naval Postgraduate School as follows:

> To conduct and direct the Advanced Education of commissioned officers, to broaden the professional knowledge of general line officers, and to provide such other indoctrination, technical and professional instruction as may be prescribed to meet the needs of the Naval Service; and in support of the foregoing, to foster and encourage a program of research in order to sustain academic excellence.[21]

Current approved goals of officer education are:[22]

1. All officers should possess a baccalaureate degree at commissioning.

2. All qualified regular naval officers should have some postgraduate education to enable them to perform their assigned jobs better.

3. Postgraduate education to meet specific billet requirements should be provided.

As stated previously, the postgraduate program is the backbone of the Navy's management training program. Graduate education in management is an increasingly vital part of the Navy's education system but at this time remains quantitatively

[21] United States Naval Postgraduate School Catalogue for 1964-1965, (Monterey, California, U. S. Naval Postgraduate School, 1964), p. 3.

[22] Study of Management Education and Training Within the Armed Forces, (Part III General Long Course Task Group Report 1963), p. III-E-3.

small in relation to other essential Navy programs.[23] The Naval Business Administration and Economics curriculum has as its objectives, to provide officers with increased education in management which will improve their capabilities for organizing, planning, directing, coordinating and controlling activities in which the resources of men, money, and materials are combined to accomplish Navy objectives.[24]

The curriculum is of twelve months duration at the graduate level. All officers are required to take "core" courses. These courses provide the foundation and tools of management and prepare the student for the elective courses. This program permits flexibility and a limited specialization by the students.[25]

Successful completion of the course results in a degree of Master of Science in Management.

The Navy utilizes three types of courses of postgraduate education in management.

The Navy Postgraduate School in Monterey, California, is the primary source of management education. This course accounts

[23] Ibid.

[24] United States Postgraduate School Catalogue for 1964-1965, op. cit., p. 36.

[25] See Appendix I for the context of the curriculum.

for about two-thirds of the officers enrolled in management education courses. The remainder are at a "contract" course in financial management which is conducted at George Washington University and various courses at other civilian institutions.[26]

For the most part these civilian universities are used when the curriculum best suits the needs of the Navy and the quota allocation makes it more economical to have the course in a civilian school. The courses used at the civilian schools are standard courses and not specially prepared for the Navy.

The Navy operates under the philosophy that the "user" is the best qualified to determine the requirements for personnel with postgraduate education. This philosophy leads to the sponsor system for identifying those billets requiring postgraduate education. The Navy has assigned "P" codes to officers which have received postgraduate education. Under this system, each billet is identified by an officer designator and rank and is sponsored by a bureau, office or activity. Sponsoring activities review their allocated billets on a continuing basis and identify each billet requiring postgraduate education with a four digit "P" code which indicates the specific education required. The billet

[26]See Appendix I for a listing of the civilian institutions and a course comparison of selected programs.

requirements are used as a basis for determining assignments to postgraduate schools and assignments to positions requiring postgraduate education.[27]

Personnel selection criteria for postgraduate training include promotion potential, academic ability, officer motivation, availability for assignment to school, military performance, and length of service. The fundamental premise of the selection system is that an officer must have achieved a certain level of military development before being considered for graduate management education. In most cases the officer is made available for the education between five and fifteen years of service with most of the management students entering between nine and sixteen years of service.[28]

In addition to the above courses, a four week course "Elements of Management" is presented once a year in the summer. This course is a basic survey course in management designed for selected officers who are sponsored by bureaus and offices of the Navy Establishment.

[27]OPNAV INST 1211.6, Identification of Unrestricted Line Officer Subspecialty billets and Restricted Line and Staff Corps Officer billets requiring graduate level education, 22 September 1964.

[28]See Appendix II.

The curriculum is designed to:[29]

1. Acquaint the officer with the principles of management and administration.

2. Examine current problems of management within the Naval Establishment and general approaches to the solution of these problems.

3. Familiarize the officer with the modern practice and method of management in civilian activities with emphasis on relationship to their applications within the Naval Establishment.[30]

Other Programs. In addition to the formal institutional education and training curriculums the Navy also conducts many Leadership programs. This was brought about by the issuance of General Order 21 in 1958. Paragraph three of the order defines Leadership as follows:

> By Naval Leadership is meant the art of accomplishing the Navy's mission through people. It is the sum of those qualities of intellect, of human understanding and of moral character that enable a man to inspire and to manage a group of people successfully. Effective leadership, therefore, is based on personal example, good management practices, and moral responsibility. The term leadership as used in this order shall include all three of these elements.[31]

[29]United States Postgraduate School Catalogue of 1964-1965, loc. cit.

[30]See Appendix I for a description of the curriculum.

[31]General Order 21 Naval Leadership, Secretary of the Navy (Washington; U. S. Navy, 1958), p. 1.

It is worth noting that two phrases; to manage a group of people successfully and good management practices, are contained in the definition of Leadership.

Because of the wide variety of Leadership Programs being conducted in the individual ships and stations of the Navy, no attempt will be made to try to determine the extent of management training conducted in each program. Suffice it to say that in each program some elements and principles of sound management are covered.

Senior Officer Education

The courses available to senior officers are numerous and have been established for many purposes. For the most part, the schools in this section are for the purpose of providing senior officers with a thorough knowledge of our nation's policies and the correct conception of the strategy as it applies to national defense.[32] To achieve this, courses are provided at the Naval War College, the National War College, the Industrial College of the Armed Forces, and the Armed Forces Staff College. The last three are joint schools where officers of all branches of the service study together.

[32]Personnel Administration in the Navy, op. cit., p. 82.

Naval War College. The mission of this college is to further an understanding of the fundamentals of warfare with emphasis on their application to future naval warfare in order to prepare officers for higher command. It offers a Naval Warfare Course for Naval Officers with 16 to 23 years service, a Command and Staff Course to officers normally of the grade of lieutenant commander, and a Reserve Officer's Course.[33]

National War College. Offers a 10 month course designed to conduct a course of study of the agencies of government and those military, economic, scientific, political, psychological and social factors of power potential, which are essential parts of national security in order to enhance the preparation of selected personnel.[34]

Instruction includes an analysis of the nature and interdependence of the several factors of national power of the United States and other nations. A study of the integration of military and foreign policy. Determination of the influence of the possession or deficiency of economic, scientific, political,

[33]Catalogue of U. S. Naval Training Activities and Courses, op. cit., p. A-2.

[34]Ibid., p. A-6

psychological and social resources upon national security, and additional subjects relating to military force and national policy.[35]

Industrial College of the Armed Forces. This is a joint college which offers a 10 month course designed to conduct courses of study in "The economic and industrial aspects of national security and in the management of resources under all conditions, giving due consideration to the interrelated military, political and social factors affecting national security, and in the context of both national and world affairs, in order to enhance the preparation of selected military officers and key civilian personnel for important command, staff, and policy-making positions in the national and international security structure."[36]

Armed Forces Staff College. This is a five month course administered as a joint college. Its mission is to conduct a course of study in joint and combined organization, planning, and operations and in related aspects of national and international security, in order to enhance the preparation of selected military officers for duty in all echelons of joint and combined commands. The educational objectives stress intellectual powers, the

[35] Ibid.

[36] Ibid., p. A-5

improvement of thinking habits, and the development of the ability to analyze, reason and reach logical decisions.[37]

SISTER SERVICES MANAGERIAL EDUCATION

The Army and Air Force have recognized a need for management education. Their programs are similar in some respects with that of the Navy's but contain some significant differences. A description of these sister services managerial development program is presented below.

U. S. Army. The Army management educational program is conducted at several locations including the Armed Forces Staff College, the Army War College and Army Management School. In addition, there are many special courses which are used to develop and to enhance managerial competence in the Army. These special courses (e.g., Personnel Management, Procurement Management and Military Comptrollership), the bulk of which are two to six weeks in length, are training courses. Individually they are narrow in scope and are oriented to particular jobs, in contrast to the courses offered in the broad-gauged civil schools program where the focus is on overall development of the

[37]Ibid., p. A-4.

individual. Nevertheless, viewed collectively, the special courses along with job experience do contribute to the overall management education and development of the Army Officers.[38]

At the U. S. Army Management School, Fort Belvoir, Virginia, two short courses in management are offered. These are the Army Management Course and the Army Management Orientation Course. These courses are short and encompass two broad areas of Army Management. These are command management and general management. Command management includes budgeting and accounting, manpower and logistics management. In effect, command management encompasses the functions of management performed by and within an organization. General management includes the role of the commander, skills of management, personnel management and Civil-Military relations. General management encompasses the functions of the manager, the personal actions the leader performs to assure that the functions of management are executed within the organization to accomplish the mission.[39,40]

[38]Study of Management Education and Training Within the Armed Forces, op. cit., p. III-D-1 to III-D-19.

[39]1963-64 Catalogue U. S. Army Management School, Fort Belvoir, Virginia (Fort Belvoir, Virginia; U. S. Army Management School, 1963), p. 12, 13.

[40]Commandants Annual Report 1961-62; U. S. Army Management School, Fort Belvoir, Virginia (Fort Belvoir, Virginia, U. S. Army Management School, 1961), pp. 12, 13.

Under the Civil Schools Program, selected Army officers receive advanced education in management at civilian institutions and leads to attainment of a graduate level degree. This education is conducted at several civilian schools, some of the courses are designed especially for the Army but most are "off the shelf" courses with no modification for military personnel.

The Army offers one "in house" course which is the 12 week Army Supply Management Course. This course focuses on training rather than education.[41]

U. S. Air Force. The U. S. Air Force Academy has a program which leads to a Bachelor of Science degree without a major. Those who take sufficient enrichment courses in a subject area may, however, receive a degree with a major. One of the five undergraduate areas in which degrees may be received is management. The enrichment course requirements for a management degree include the following subjects.

Social Psychology

Industrial Psychology

Government Contracting

Managerial Accounting

Price Theory

[41] Study of Management Education and Training Within the Armed Forces, op. cit.

Quantitative Methods I and II

Managerial Economics

Seminar in Defense Analysis

The Air Force Academy also has a cooperative arrangement with certain civilian universities whereby selected cadets may earn master's degrees from those universities within seven months after their graduation from the Academy. In one of these programs a masters degree may be earned in the field of International Affairs which includes Economics. A program in management is contemplated in the near future.[42]

The Air Force graduate management education program encompasses four types of arrangements: in-house at the Air Force Institute of Technology, contractual courses in civilian universities tailored to meet Air Force needs, and off-the-shelf curricula in civilian universities, and the Minuteman Education Program.

The Air Force offers a 12 month graduate logistics curriculum in its School of Systems and Logistics, Air Force

[42] United States Air Force Academy Catalogue 1964-1965 (Colorado Springs; United States Air Force Academy, 1964), pp. 53-108.

Institute of Technology. There is also a 15 month Graduate Systems Management Course offered at the Institute.[43]

The Minuteman Capsule Education Program consists of a graduate Business Administration curriculum at Ellsworth Air Force Base, and a Graduate Industrial Administration curriculum at Minot Air Force Base. The officers out of each eight day period will work four days, go to school two days, and have two days free from duty. The degree awarded will be a Master of Arts. Core areas of study include management, economics, quantitative methods, and behavioral sciences.[44]

The Air Force also has a graduate management program in civilian universities. There are 21 civilian institutions which are presenting management related courses to Air Force officers leading to master's degrees.[45]

CIVIL SERVICE MANAGERIAL EDUCATION

Congress has realized the need for training and education of the civil service employee. In 1958 they passed The Government

[43]Air Force Institute of Technology, Air University, United States Air Force Catalogue, 1963-1965 (Wright-Patterson Air Force Base, Ohio: U. S. Air Force, 1963), pp. V-1-V-20.

[44]Ibid., pp. II-1-II-2.

[45]Ibid., pp. III-1-III-31.

Employees Training Act, Public Law 85-507, approved July 7, 1958. This law was designed to promote efficiency and economy in the government through training and education programs for civilian officers and employees of the government with respect to official duties.

Through this program will be established and maintained the highest standard of performance in the transaction of the public business, and to install and utilize effectively the best modern practices and techniques which have been developed, tested, and proven within or outside the Government.

The law is designed to:

1. Improve public service.

2. Result in dollar savings.

3. Build and retain a permanent cadre of skilled and efficient government employees, well abreast of scientific, professional and technical, and management developments both in and out of Government.

4. Promote a reasonable uniform administration of training consistent with the mission of the Government.[46]

[46]Federal Personnel Manual, Supplement 990-1, Washington, D. C., (U. S. Civil Service Commission, 1958), pp. I-125-I-134.

Department of Defense. A recent Department of Defense report indicates that a considerable amount of education and training is being administered to civilian employees in the military departments. Of nearly 26,400,000 hours of formal instruction given, 4,887,400 hours could be classified as managerial training.[47] The estimated average amount of managerial training given per supervisory employee totaled 28 hours overall; 32 hours in the Army, 20 hours in the Navy and 29 hours in the Air Force.[48]

The greatest proportion of managerial training is concentrated on the first and second levels of supervision, with considerably less attention given to managerial training at the higher levels. There is evidence that there is extensive in-service managerial training and education being conducted within the Department of Defense for personnel at this level in such subjects as: human relations, supervisor responsibilities, training of workers, self-improvement, leadership, and labor-management relations. Much of this training is conducted through "packaged courses" developed centrally by one or the other of the military departments

[47] Study of Management Education and Training Within the Armed Forces, (Part VII General Long Course Task Group Report, 1963), p. VII-6.

[48] Ibid.

and distributed throughout the department for local use. In addition to the "packaged courses" first and second line supervisors participate in management courses developed at the local level in specific technical aspects of management such as budgeting, manpower utilization, and personnel management.

Civilian employees participate in major Department of Defense schools such as the National War College, and the Industrial College of the Armed Forces. They also participate in management development programs sponsored by the U. S. Civil Service Commission.

Long term management development programs have not been extensively used, but there is evidence that this type of education is receiving more emphasis and will continue to be more frequently used in the future. [57]

Management Education Programs, U. S. Naval Ordnance Test Station, China Lake.[49] At NOTS China Lake a wide selection of management development programs are offered employees. Because of the remote nature of the test station, and the lack of educational facilities in close proximity, the planning personnel have instituted a comprehensive training and education program

[49]Telephone Interview, Mr. Joseph Doucette, Acting Head of Department, Employee Development Division, U. S. Naval Ordnance Test Station, China Lake, California, July 1965.

open to all of their 6,000 employees, both civilian and military. Because of the nature of the work at China Lake the emphasis of the educational program is naturally technical, however, a wide range of management subjects are included in the career planning program.

Day Class Program. This program is mostly job-oriented training taught during the normal work day by qualified personnel from the local staff. Several courses are taught in the mangement field covering both the principles and the technical aspects of management. Courses in this program are changed from time to time to meet the local needs.

University of Southern California Master Program. In conjunction with the University of Southern California School of Public Administration, NOTS China Lake is offering an educational program leading to a master's degree. This program includes many technical courses of instruction and a course of study leading to a degree in Political Science. The Political Science course is designed to be completed in three years by the student taking one or two courses each semester. The course is the same as the one offered by the university on campus. The program has been in effect for two years and enrollment runs between 12 and 20 students.

University of California, Los Angeles Extension Courses. UCLA offers many courses on an extension basis at the station. These courses for the most part are aimed at technical training, many are tailored to fit the local requirements. Courses are offered in this program that can lead to a degree but they are all in technical fields. Some courses are offered in Human Relations, Statistics, Business Psychology and similar subjects.

Supervisor Development Program. Training in this program is aimed at the first line supervisor. The bulk of these courses are specific in content such as safety and material handling. Some time is spent on subjects such as personnel relations, morale, attitudes, etc.

Fellowships. To develop promising employees a fellowship program has been adopted. Through this program civilian personnel are selected to attend the colleges of their choice and to pursue the field of educational endeavor that they choose. Management educational fields are included in the areas of study qualifying under this program.

Management Intern Program. In this program young college graduates are recruited and employed at the GS-5 to GS-9 grades. These recruits are selected from the fields of Sociology, Psychology, Business Administration, and other liberal arts

courses. As management interns they are rotated through various departments for six months. At the end of this rotation phase they are placed in a department, trying as much as possible to place them in locations that suit their abilities and interests.

MANAGERIAL EDUCATION FOR PUBLIC ADMINISTRATION

Apart from the so-called "cramming" institutes which claim to prepare applicants for special examinations, pre-entry education for the public administrator has gradually increased over the years.[50]

Individual academic institutions have long offered well rounded courses in a number of specialized public service areas, such as public administration, forestry, public health, welfare, highway engineering, teaching and agriculture. Starting with the early Taylor Society (now Society for Advancement of Management) approximately 50 years ago there was a movement that maintained that administration is not only an art but also a science and that certain principles may be deduced from administrative practices which taken together, provide a body of organized knowledge. Those adhearing to this thought believe that it was possible to

[50]O. Glenn Stahl, Public Personnel Administration, (New York: Harper & Brothers, 1956), pp. 339-340.

develop a curriculum that would satisfy the needs of the public administrator.[51] As a result of this feeling, several schools have been developed along the lines of liberal arts with a major in the social sciences including courses in organization and management, business and management statistics, personnel administration, economics, management research technique and methods and related specialized courses that equip the individual for a career in public administration. Most schools of Public Administration resemble schools of business administration in many respects but add the problem of adapting to the political environment of the public service.

Schools have also, on the theory that experts cannot escape administrative responsibility at some time in their career, been including a liberal exposure of administration or management science in the curriculum of specialists such as chemists, lawyers, doctors and statisticians.

This attitude has prevailed on both the undergraduate and the postgraduate level. Several fine schools in public administration on the graduate level have been in existence for many years. A brief description of some of these programs follows.

[51] Ibid., p. 340.

Harvard University, Graduate School of Public Administration. The purpose of the Graduate School of Public Administration at Harvard is to give a small number of mature and carefully selected students an opportunity for advanced training and research, under the direction of faculty members who are actively engaged in the study of some important phase of public policy or public administration.

The School's teaching program is organized primarily around a series of research seminars which deal with significant problems of public policy.

The Graduate School of Public Administration has not been conceived as a school which would centralize public service training at the University, or even provide a major part of it. Instead, it undertakes to provide certain types of advanced training, especially those needed by public officials responsible for the formulation and administration of broad policies, and to provide for research on major issues of public policy.[52]

Programs of study are highly flexible and can be tailored to meet the individuals' needs. The course leads to a Master in Public Administration degree. The Doctorate is also granted.

[52]Official Register of Harvard University, Graduate School of Public Administration 1960-1961, (Cambridge Station, Boston, Mass: Harvard University Printing Office, 1960), pp. 8-10.

Syracuse University, The Maxwell Graduate School of Citizenship and Public Affairs. The Maxwell School is the social science division of the Syracuse University. At the undergraduate level, it is the social science division of the College of Liberal Arts. At the graduate level it is a special social science school operating within the framework of the University Graduate School.

The Maxwell School has been longest and most widely known for its program in public administration. This school has four distinct programs, three of which provide a general acquaintance with public administration in the political environment and lead to a Master's degree. These programs are designed to equip graduates for favorable beginnings in administrative careers. The fourth program has as its objective academic training for those who have already achieved a measure of success as practicing administrators and leads to a Doctor of Public Adminstration degree.[53]

Other Schools. Many other schools offer education in the field of public administration. Schools offer both undergraduate, and graduate work and some offer both master and doctor's degrees.

[53] Programs in Public Administration at Syracuse University, 1960-1961, (Syracuse, New York: Syracuse University, 1960), pp. 5-18.

Some of the universities offering education in this field are listed below.

American University

Cornell University

George Washington University

New York University

Temple University

University of California

University of Chicago

University of Denver

University of Maryland

University of Southern California[54]

Wayne University

CIVILIAN EDUCATION FOR MANAGERS OF BUSINESS AND INDUSTRY

Education programs in management being provided by business and industry for its employees are but a small part of the overall education and training programs being offered. The following list indicates the options that business and industry may select.

[54]This university has been a pioneer in teaching Public Administration and has been offering the doctorate for over 15 years. It also coordinates many programs in international administration tailored to the needs of various foreign governments.

1. None. Complete absence of any attempt to provide training.

2. Job-oriented training. Training within the plant or industry.

3. Company information programs. Usually on policies and practices or specific on procedures.

4. Professional and Technical. Training with the intent to develop men or qualify men.

5. Executive development programs. Planned and conducted by an accredited institution or by a non-profit organization.

6. General Education programs. Usually cooperative programs conducted by company and colleges. Also university courses for selected company personnel.

The programs that are of interest to this study are the ones in categories five and six as they pertain to management development. [10]

As pointed out in Chapter II, the expansion of education and training programs has been recent and rapid. The variety of programs, the extent of company support and the proportion of the companies providing programs at the advanced, or graduate level is quite large.

These programs include, those in which the training is provided by the company during working hours and is supplemented by night school attendance on the part of the employee, training in the plant with allowed time off for attendance at a nearby institution, combinations of class-room and on-the-job training during the working day and programs of cooperative training, where a specified period is spent at the plant and an alternate period in an educational institution. [44]

Junior executives are the most likely to receive training through assignment to trainee positions, job rotation, or methods applicable to an "in plant" type program. The personnel selected for attendance at seminars, management short-courses and at colleges and universities are characteristically from "middle management". Individuals enrolled, with the company's support, in these kinds of programs are either already in or selected for responsible management positions. [44]

In order to develop the training which would emphasize the subject matter of certain areas believed necessary to the development of managerial personnel, industrial and business organizations are looking increasingly to the colleges and universities for instruction on: [44]

1. The economic and social forces in the world.

2. Development of creative thinking and decision making ability.

3. Basic management skills.

4. Education in human relations.

5. Skills specific to an area, such as accounting, finance management, production engineering, sales tax and administrative law, and electronic data processing procedures.

6. One industry courses--such as utilities, banking, etc., which would present an industry-wide approach.

7. Workshops on specific management problems.

The courses offered to cover these areas are usually such as they can be classified under the following headings: [18]

1. The process of being an executive
    a. Policy formulation
    b. Executive action
    c. Administrative practices
    d. Organizational and control
2. Business Functions
    a. Marketing management
    b. Management of operations
    c. Accounting and fiscal administration
    d. Statistical planning and records control.

3. Public relations

   a. Community relations

   b. Business and government.

4. Personnel development

   a. Economic and social processes

   b. Conference leadership and public speaking

   c. Appreciation of the arts--music, etc.

SHORT COURSES AND SEMINARS FOR MANAGERS

American Management Association Educational Program

The American Management Association conducts a year-round program of conferences, seminars, courses and other educational activities. These courses are attended by thousands of business and industrial executives annually. The overall program operates within the frame work of nine major areas of management interest, each of which has divisional status.[55]

Finance	Manufacturing	Packaging
General Management	Marketing	Personnel
Insurance	Office Management	International Management

These subject areas are dealt with through the following meeting programs:

[55] Management Information Service, A Guide to Short-Term Courses and Seminars for Management, (New York: American Management Association, 1956), p. VII.

Conferences. Conferences are large-scale meetings held once or twice a year by each AMA Division. Over a two to four-day period both members and non-members have the opportunity to hear authoritative speakers and panel groups, and to share in the exchange of knowledge on vital problems of management. These national conferences are held regularly in New York and Chicago, and in other major cities. Special conferences are held from time to time to give intensive treatment to specific areas of current interest.

These conferences frequently are broken down into several areas. Usually there is a major presentation followed by a general discussion period which is designed to relate the conference presentation to specific group interests and current problems. After the presentation small groups are formed under the guidance of skilled discussion leaders to study, analyze and discuss the main presentation. Emphasis in the small group project sessions frequently are aimed at solving problems, the same kind that the participants might find at their own companies.

Seminars-Workshop Seminars. These are discussion groups of 15 executives. Under the guidance of two other executives who serve as discussion leaders, groups explore and exchange experiences on a single aspect of management.

Single-unit Seminars meet for three days; multiple units from six to nine days. These small groups meet in many cities across the nation including Canada.

Orientation Seminars. These seminars provide a refresher in fundamentals as well as a picture of current developments. Most of the subject matter is presented through lectures. Attendance is limited. These are also presented in many cities over the country.

Courses. In addition to the programs previously presented, the American Management Association provides courses of instruction covering a variety of subjects including such subjects as: principles and skills and tools of management. Courses designed especially for presidents and oriented toward the chief executive. Also courses more specific as marketing, communications, etc., are presented.[56]

Society for Advancement of Management

The Society for Advancement of Management (SAM) is the oldest among the professional management societies. SAM was formed in 1936 out of the Taylor Society, and the Society of Industrial Engineers, and the Industrial Methods Society.

[56] Ibid., p. VIII.

The society's goals are:

1. To promote improved management practices and to communicate them for profitable application wherever needed by managers.

2. To provide members with a pool of the latest knowledge of management techniques always at their disposal.

3. To offer members opportunity for growth in management knowledge by association with other managers and participation in the society's activities.

4. To encourage recognition of management as a profession by teaching courses and upholding standards of performance.

5. To extend local assistance to business managers through organized area chapters, supplemented by guidance from the International Offices.

6. To strengthen management education in universities by establishing and maintaining SAM student chapters.[57]

Like the AMA, SAM is very active in the management development. SAM's local and university chapters help train today's and tomorrow's managers on all levels in improved management practices. National awards and scholarships are given each year

[57]John F. Mee, "S.A.M.-A Short History", Advanced Management Journal, September, 1963, pp. 6, 7.

and professional manager citations are bestowed. Research reports and professional monographs on managerial subjects are available to members, along with SAM's official periodical, Advanced Management Journal.

Within SAM there is the Foundation for Management Education (FME) which assists the university program.

In addition, the frequent meeting of the society results in teaching, developing and communicating new techniques and of maintaining the standards of the management profession.

Other Societies

In addition to the American Management Association and the Society for Advancement of Management, there are many societies that are active in the development of management and managers. Some of these associations are listed below:

Academy of Management. This organization is made up of Professors and Authors. Meetings are held once a year where the contents of member publications are discussed. The organization uses a conference and a work shop approach to presenting management problems.

Academy of Political Science. The activities of this organization include discussions, through semi-annual meetings, of social, economic and political questions.

American Society of Political and Social Science. The academy publishes "The Annals" and provides a national forum for discussion of political and social questions annually; also holds other special meetings which often deal with public management problems.

American Society for Public Administration. This society seeks to facilitate the exchange of knowledge and the results of experience among persons interested or engaged in public administration, and encourages the collection, compilation, and dissemination of information on matters relating to public administration. Their purpose is to advance generally the science, processes, and the art of public administration. The society holds annual meetings, sometimes in conjunction with the American Academy of Political and Social Science.

Public Administration Clearing House. This is a non-profit organization interested in facilitating the inter-change of information, points of view, ideas and experience among organizations of public officials, citizens and other interested groups. It maintains a Personnel Exchange service which helps public officials locate specially qualified candidates for research and administrative positions.

It also maintains a Publicity Department which provides information on current happenings in public administration and holds occasional seminars to explore the facets of administrative problems.

Public Administration Service. The activities of this organization include furnishing all levels of government, international, national, state, and local with advisory and consulting services and makes general administrative surveys, reorganizations and installations, and conducts many management services.

Western Governmental Research Association. This group, which is located at the University of California, Berkley, California, is interested in management development and holds periodic conferences in the management area.

Other organizations interested in the management field include:

American Institute of Industrial Engineers

Armed Forces Management Technicans Association

Association of Business Management in Public Health

Association of School Business Officials of the United States and Canada

Brookings Institution

Council for International Progress in Management (USA), Inc.

National Association of Suggestions Systems

National Office Management Association /337

Management Development Courses

College and University Programs. Colleges and universities throughout the United States are presenting programs designed especially for developing the manager. These programs vary in length from one and two week courses to very long and complete sixteen week courses. The material covered is of varying context depending on the institution concerned.

To describe the programs offered at all colleges and universities would be a difficult undertaking and would not suit the purpose of this study, however, two representative programs have been selected from the management programs offered at Harvard.

The Harvard Business School catalogue describes the courses as follows:[58]

> The Advanced Management Program is intended for mature executives ranging in age from the late thirties to middle fifties, who are, or soon will be, in top management positions. Its over-all purpose is to prepare participants to assume the responsibilities of top leadership in business, or in public organizations, and to exercise those responsibilities in ways that serve their organizations profitably and society at large. To this end, AMP aims at developing

[58] Management Programs at the Harvard Business School, (Boston: Harvard University, 1965), p. 6.

a general approach to management that treats the organization as an entitity functioning in a world setting and that concentrates on problems of broad policy and strategy of long-range significance to business. It deals with basic content in the functional fields only to the extent that background is required to comprehend and deal effectively with problems of a policy nature. It provides a frame for reflective thinking, systematic study and analysis. As an important element of the educational process, AMP offers participating executives an unparalleled opportunity to share experiences with, and learn from, their peers from a variety of backgrounds in business, government and the military, as well as from business leaders from nations overseas. In this atmosphere, executives have an opportunity to extend their knowledge and understanding of practical affairs, to view their own career experiences in fresh perspective, to clarify their values and attitudes affecting their behavior as leaders and as individuals, and to gain a larger understanding of their roles in influencing constructively the shaping of the world of tomorrow.[59]

The school also offers a course for younger managers. The catalogue describes the course as follows:

The Program for Management Development is designed to meet the requirements of younger men, from their late twenties to late thirties, currently filling responsible positions at the operating level who have demonstrated by their performance that they are potential top-echelon managers. The 16-week PMD course is operationally oriented, intended to equip middle managers to handle their day-to-day assignments better and to prepare them to assume increasing responsibility in the years ahead, recognizing that profits earned by efficiency and imagination are the mainspring of economic growth. PMD trains participants in modern management skills, techniques, processes and concepts. It is designed to broaden their outlook and to penetrate the functional barriers that limit vision by providing younger managers, who usually have earned their spurs in one functional area, with a working knowledge of, and respect for, all the basics of business,

[59]Ibid., p. 7.

> such as marketing, production, finance, human relations, statistics and control. PMD is devised to enable middle managers to appreciate, by means of intensive educational experience and association, the critical interrelations of the component parts of any enterprise to its profitable operation and to help each participant recognize the meaning of other operations and functions to his own area of responsibility. It is, in effect, a bridge of practical, yet broad-gauged learning preparing younger managers of high potential to make the transition to full use of their talents ably and quickly in response to new challenges and responsibilities.[60]

Short Courses and Seminars. In addition to the courses described, many colleges and universities offer short courses and seminars on special topics from time to time. These courses cover virtually all possible management subjects from very general matter such as principles to very specific matter as law, accounting, etc. Several management associations attempt to keep an up to date list of the courses, however, complete information is most readily obtained from the sponsoring organization.

[60]See Appendix I for a detailed listing of the courses in these programs.

CHAPTER V

SUMMARY

Review

In Chapter II it was noted that authorities on the subject of management agreed on the universality of management principles. There is agreement that the principles that have been developed are in fact applicable to all organizations.

It was further noted that authorities agree on the need to train managers and that managerial abilities become more important as one climbs the executive ladder. In the past it was believed that good managers were born and that not much could be done to improve individuals in this regard. However, with the rapid growth and increasing complexities of technology, it became evident that there was a need to train people in managerial positions in order to improve the economy and efficiency of the organization. Thus, such men as Taylor, Fayol, Urwich, and many others went about the task of bringing this need to the attention of organization leaders.

Like any science the need is not always readily apparent to everyone. Thus, at first, the growth of management techniques and the use of principles was slow. So also were the training and educational facilities available to teach the techniques and

principles. Thus, although the development of scientific management started around the turn of the nineteenth century, its most rapid development did not start until after World War II. Since then the training and education facilities available to managers have increased at a rapid rate.

The Navy management development program had a modest beginning back before the start of World War II. This was limited to a few courses at the Postgraduate School and the use of educational facilities at several colleges and universities. During the war some of the education facilities were dropped, as the Navy was slow to realize the need for trained managers. No significant improvement was made until 1956. At this time the Navy established, within its Postgraduate School, a School of Management with its own curriculum and input. Although started as only a five month course, the curriculum has had many changes and today is a 12 month curriculum leading to a Masters Degree in Management.

In addition to the 12 month Navy Management (Business Administration and Economics) curriculum, the department also offers a one year curriculum in Management (Data Processing), a two year curriculum in Operations Analysis and a four week summer course in "The Elements of Management". Courses are also

utilized at different colleges and universities in specific areas of management.

In Chapter IV a study is made of management education. In the first section officer candidate education is reviewed at the many different sources of procurement utilized by the Navy to obtain educated young officers. This review covered the U. S. Naval Academy, U. S. Naval Reserve Officer Training Corps Program, U. S. Naval Officer Candidate School, Reserve Officer Candidate Program, U. S. Naval School Pre-Flight, U. S. Merchant Marine Academy and State Maritime Academies, Navy Enlisted Scientific Education Program and U. S. Naval School Officer, Women. It was noted in this review that, except for the Naval Academy where the Navy has control over the curriculum of the officer candidate, little or no management education is given. In those where the Navy does not exercise direct control over the candidates, the curriculums are wide and diverse. This covers the range of from no management training through intermediate stages to a complete background in management.

In the next section a discussion is made of the management training conducted at the local command level, that of the Postgraduate School, and that conducted in the Navy's leadership program.

At the local command level, management programs tend to be narrow and cover specific areas as pertains to the local needs rather than broad and covering the general principles and practices of scientific management.

The mission and goals of the U. S. Naval Postgraduate School were discussed, particularly as they pertain to the Management School, as it is the backbone of the Navy's management education and training program. The object of the management curriculum is to provide officers with increased education in management and to improve their capabilities as managers and to obtain an efficient utilization of men, money and materials. It was further noted that the input into the school is quantitatively small in relation to other Navy programs.

The naval leadership program was also examined. In the definition of leadership, the word management is used several times. It was assumed that the leadership program as conducted at the different commands, covered some of the principles and practices of good management, but no attempt was made to determine the exact level of management training because of the wide and varied programs offered at each command. Further, the quality of this program will only be as good as the depth of the background of those who attempt its implementation.

The many courses available to senior officers were examined. These included the Naval War College, National War College, Industrial College of the Armed Forces, and the Armed Forces Staff College. These courses have as their primary purpose the development of the senior officer's knowledge of our nation's policies and strategies necessary for the successful accomplishment of our national interests.

The management education and training facilities of the U. S. Army and U. S. Air Force were reviewed. The Army has several programs for developing managers. Among these are the Armed Forces Staff College, Army War College and the Army Management School. In addition, several special courses are given to enhance managerial competence.

Of particular note is the Army Management School which offers two courses in management. One is The Army Management Course, the other, the Army Management Orientation Course. Both courses concentrate on command management, which encompasses the functions of management performed by and within the organization, and general management, which encompasses the functions of the manager and the personal actions of the leader to assure the accomplishment of the Army's mission.

The U. S. Air Force has several management development programs. One of these is in the form of an undergraduate major field of study at the Air Academy. Others, on the graduate level, include in-house facilities at the Air Force Institute of Technology, contractual courses in civilian universities tailored for the Air Force, and off-the-shelf curricula in civilian universities. Also, included is the Minuteman Capsule Education Program which mixes a graduate Business Adminstration curriculum with the daily work routine.

Congress has realized the need for qualified civilian personnel in the government agencies. In 1958 they passed the Government Employees Training Act which opened the way for extensive education in all fields including management. As a result of the legislation the civilian employees of the military departments have available to them training and education opportunities. Considerable management education is being administered to these employees, however, it seems to be concentrated at the lower and middle groups of managers. There are indications that long-term management education programs are getting more encouragement and are being used more extensively.

At the NOTS China Lake, an extensive career planning program is being conducted.[1] Through the program employees, both civilian and military, are offered educational and training opportunities covering almost every facet of managerial education. Programs are designed to indoctrinate the new employee, update the supervisor, and provide education study in the management field.

The Public Administration Service has several pre-employment programs that develop management potential. The colleges and universities throughout the country have schools that teach Public Administration at both the undergraduate and graduate level. The programs at these schools emphasize the development of those qualities and abilities that are desirable in managers.

Business and industry have become increasingly aware of need to train their executives. Today, there are many different types of facilities available to executives. These include training during the work day and supplemented by night school, training in the plant with time off at nearby institutions, combinations of class-room and on-the-job training, and coopera-

[1]Many Navy Research and Development programs have developed educational programs to keep scientists and engineers updated and to enable them to obtain advanced degrees.

tive training where a period is spent at work and an alternate period in educational insitutions. These programs are usually designed for the junior executive who has been selected for responsible management positions. Middle management personnel are usually selected for attendance at seminars and short courses.

Many short courses and seminars are available throughout the country today for executives. Some of these are provided by the various management associations through the utilization of conferences designed for large groups and presenting authoritative speakers and panel discussions, workshop seminars for smaller groups to explore and exchange views, orientation seminars for a refresher in fundamentals and current developments, short courses covering a variety of subjects and periodic meetings.

Colleges and universities are also active in presenting programs for executives. These courses range in length from two to sixteen weeks and cover a wide variety of material depending on the institution concerned. In addition, many colleges and universities also provide short courses and seminars on special topics.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The information in Chapter II points out that many authorities agree in most areas of management. However, there has been an enrichment of the literature by the impact of other disciplines, i.e., the social sciences and mathematics.[1] Among these areas of agreements are the universality of certain management principles as they pertain to all types of organizations. There is more general agreement on the need to develop managers through education, training and experience. No longer can it be assumed that good managers are born, and that the only problem is to obtain such employees. Business and industry are realizing this at an ever increasing rate, and are actively participating in management development educational and training programs.

The fundamental significance of management education and training is its effectiveness in enhancing the success of managers in their immediate and future tasks. The ability to manage well will be of benefit to, not only the officer involved, but will

[1]For several years, the evolution of systems management and the impact of the behavior science has created certain controversy among managerial educators. Many challenge the so called principles approach, but substitutes for their approach appear to develop merely a different set of principles.

operate in the interest of the men who man the Navy's ships and stations and the Navy as a whole. The opportunity for intelligent participation and interest in one's career, and the right to grow in one's job ought to be looked upon as the heritage of anyone who is devoting his life to a naval career. This opportunity may result through management development. As John M. Pfiffner was once heard to say: "Organizations resist intellect." The perpetual problem of management is to see to it that intellectual influences blow their fresh winds periodically through the stale airs of an organization. This is the basic reason why so many groups have urged more attention to management training and education and development of executive competence.

The development of the U. S. Naval Postgraduate School is an indication of the growing awareness within the Navy of the need to educate and train officers in the application of sound scientific management principles. This awareness, however, appears to have been somewhat belated, as no formal procedure was developed until 1956 when the Management School was established. Since then the school has gone through many changes and today offers a comparable curriculum with that of other institutions. Apparently the reason the input to the Management School is small is the failure of many "user" organizations

to assign "P" code designations to jobs under their cognizance.

A review of the different programs through which an officer enters the Navy was conducted to determine the emphasis placed on management education. From this review, it is concluded that there is little or no emphasis being placed on the management development of the junior officer.[2] Of particular note was the fact that except for the recent addition to the management major program at the Naval Academy, none of the procurement programs offer or require any form of management development. One possible exception being that which is offered in leadership courses which may over lap into management development areas. Although it is realized that technical knowledge is relatively more important at the lower levels, it must still be emphasized that most all officers, junior and senior, occupy positions as managers. The procurement programs therefore appear to be lacking in this important area.

The Navy has developed a fine program of postgraduate education in mangement. However, it must compete with

[2]Some authorities argue that this is desirable. During the early years of service officers hold technical jobs, as they become more senior they acquire managers postions.

technical programs in other fields that have high priority and require considerable educational effort. Consequently, it will take some time to reach the state where each officer is afforded an adequate background in management education.

The average years of commissioned service of the student entering postgraduate school management curricula is twelve years. This policy of requiring naval officers to obtain military development prior to attendance at graduate school and the lack of management training at the junior officer level leaves most naval officers with no managerial education.

In-service management education and training has not made up for the deficiency as noted in officers entering the Navy. Although many so called management programs are presently underway, they have has as their emphasis the narrow requirements of the local station or ship and may in fact cover nothing more than local procedures. Because of this, their value in the overall development of managers is somewhat doubtful. The Navy's leadership program can only be assumed to cover some of the practices of sound management. This will depend on the specific elements covered in each local leadership program and the quality of personnel putting on the program, together with the kind of support given by the Command. Even the development of senior

officers, as noted does not stress or even cover the need for greater managerial abilities as one approaches the top. It appears that, with the exception of the Postgraduate School and associated programs, little coordination or direction is being given to developing officers as good managers. The development emphasis rests entirely on job rotation and experience within the service.

Despite attempts of most organizations to enhance their managers abilities and to provide management training programs for them, it seems that this training and education is aimed at the lower and middle managers. This trend seems to hold true in the Navy also. Despite efforts to train all levels of managers, the top personnel seem to be left out.[3]

Business and industry are sending their managers to many different types of programs to enhance their managerial performance. Such things as conferences, seminars and short courses are being utilized for this purpose. The Air Force, through its programs, as pointed out in Chapter IV, appears to have realized the importance of such training, and has developed many different programs to increase mangerial performance.

[3]The new Defense Management Program is aimed in this direction. Further those given education at the Postgraduate School have been given the kind of background to enable them to understand top management problems.

Recommendations

1. That management courses be required in programs sponsored by the Navy, such as NROTC, ROC, and NESEP.

2. That management courses be included in the curriculum of OCS and Pre-Flight for those who are lacking in such education.

3. That the enrollment of the naval officers to the Management School be increased to meet the needs for management education, keeping in mind the overall training requirements of the Navy.

4. That short training courses be established, perhaps one on each coast, to provide management training for officers not included in the postgraduate programs.

Recommendations for Further Research

It was not the intent of this study to establish recommended courses in management. It is felt that some concentrated study should be made to develop a short management course solely for naval officers. The study should attack the problem from the junior, middle and senior officer standpoint.

Implications

The Navy is making an attempt to provide management training and education to its naval officers. It is not, however,

providing a large enough number of its officers with a working understanding of scientific management approaches and principles. This shortage could have serious consequences and the implication is that the Navy for a good part, is operating on intuition, guess and good luck. The serious implication here is that a great deal of efficiency and economy is lost at a time when it is sorely needed. Good management could go a long way toward reducing operating cost, aiding re-enlistment and generally enhancing the mission and objectives of the Navy.

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APPENDIX I

MANAGEMENT EDUCATION AND TRAINING INPUT

NAVY POSTGRADUATE MANAGEMENT EDUCATION 1963 AND 1964

COURSE	LOCATION	DEGREE	1963	1964
Navy Management	USNPS	M.S.	86	100
Business Admin.	Harvard	M.B.A.	3	3
Business Admin.	Stanford	M.B.A.	3	2
Financial Mgt.	G.W.U.	M.B.A.	18	19
Mgt. & Indust. Eng.	R.P.I.	M.S.	1	4
Procurement Mgt.	Univ. Mich.	M.B.A.	3	3
Subsistence Techn.	Mich. State	M.B.A.	2	2
Systems Inv. Mgt.	Harvard	M.B.A.	0	3
Transportation Mgt.	Mich. State	M.B.A.	2	3
Retailing	Pittsburgh	M.B.A.	2	5
Advanced Logistics	A.F.I.T.	Pending	4	4
Petroleum Mgt.	U. Kansas	M.S.	2	4
Textile Technology	U. of N.C.	M.S.	0	2

U. S. Naval Postgraduate School (12 Months)[1]

	Required	Electives
Economics		
Principles of Economics	4	
Managerial Economics	4	
Micro-Economic Theory		4
National Income and International Trade		4
Government and Business		4
Mathematics and Statistics		
Mathematics for Management	4	
Probability and Statistics	10	
Industrial Management	4	
Systems Analysis		4
Quantitative Decision Making		3
Computers and Data Processing	4	
Financial Management		
Principles of Accounting	3	
Managerial Accounting	3	
Budgeting and Control	3	
Internal Control and Auditing Seminar		3
Cost Accounting and Cost Analysis		3
Controlership Seminar		4
Material Management		
Material Management	3	
Procurement and Contract Admin.		4
Scientific Inventory Management		3
Personnel Management		
Management Psychology	4	
Personnel Administration and Industrial Relations	4	
Personnel Administration Seminar		3
Labor Relations		4
General Management		
Organization and Administration Theory	5	
Organization and Management Seminar	3	

[1]United States Naval Postgraduate School Catalogue for 1964-1965 (Monterey: U. S. Naval Postgraduate School, 1964), pp. 35-36.

Facilities Planning		3
Thesis Writing	2	
Thesis	4	
	64 hr.	9-15 hr.

Minimum Term Hours Required for M.S. Degree = 60 = 40 Semester Hours.

U. S. Naval Postgraduate School[2]

ELEMENTS OF MANAGEMENT CURRICULUM (4 weeks)

Course	Hours
Principles of Organization and Management	15
Personnel Administration	15
Industrial Management	15
Financial Management	15

[2]United States Naval Postgraduate School Catalogue for 1964-1965 (Monterey: U. S. Naval Postgraduate School, 1964), pp. 36-37.

George Washington[3]

NAVY FINANCIAL MANAGEMENT (12 Months)

UNDERGRADUATE	S.H.
General Accounting	3
Industrial and Governmental Economics	3
Statistical Decision Making	3
Management Communication	3
Total	12

GRADUATE	
Accounting	
Cost Accounting	2
Managerial Accounting	3
Internal Control and Auditing	3
Sub Total	8
Public Administration	
Governmental Budgeting	3
Business Administration	
Survey of Data Processing	3
Financial Mgt.	3
Seminar in Marketing	3
Bus. Org. and Management	3
Management Engineering	3
Readings and Conferences in Financial Mgt.	3
Human Relations in Business	3
Research Seminar	3
Research Seminar in Comptrollership	3
Graduate	38

Summary

Undergraduate	12 Hrs.
Graduate	38 Hrs.
Total	50 S.H.

Degree M.B.A.

[3]The George Washington University Bulletin 1964-1965 (Washington, D.C.: University Press, 1964), pp. 168-173.

MANAGEMENT EDUCATION WITHIN THE NAVY DEPARTMENT - REPRESENTATIVE CURRICULA

School:	Navy(1)		Harvard(2)		Geo.Wash.(3)	Mich.(4)	N.Westrn(5)	AirForce(6)
Course:	Management		Bus. Adm.		Fin Mgt	Procmt Mgt	Transp Mgt	Logistics
Length:	12 Months		2 years		1 year	1 year	1 year	1 year
Degree:	M.S.		M.B.A.		M.B.A.	M.B.A.	M.B.A.	Pending
S.H. For Degree:	60 (Min.)		60		50	60	24-30	40
Curriculum (Semester Hours)	Req (4)	Elect	Req (1) year	Elect				
ECONOMICS								
Basic Economics	4.0				3.0			
Micro Economics		4.0					2.7	3.0
Managerial Economics	4.0	4.0					2.7	3.0
National Economics		4.0						3.0
International Economics								
Money and Banking								
Government and Business		4.0				3.0	5.4	
Business, Society, & the Individual							2.7	
TOTALS	8.0	12	Year		3.0	3.0	13.5	9.0
MATHEMATICS AND STATISTICS								
Probability and Statistics	10.0		Year 2 Yrs		3.0	6.0	2.7	4.0
Basic Mathematics	4.0							
Management Information Systems	4.0		Year					3.0
	18.0	0.0	Year 3 Yrs		3.0	6.0	2.7	7.0

Cont'd

School:	Navy(1)		Harvard(2)		Geo.Wash.(3)	Mich.(4)	N.Westrn(5)	AirForce(6)
Course:	Management		Bus. Adm.		Fin Mgt	Procmt Mgt	Transp Mgt	Logistics
Length:	12 Months		2 years		1 year	1 year	1 year	1 year
Degree:	M.S.		M.B.A.		M.B.A.	M.B.A.	M.B.A.	Pending
S.H. For Degree:	60 (Min.)		60		50	60	24-30	40
Curriculum (Semester Hours)	Req	Elect	Req	Elect				
FINANCIAL MANAGEMENT								
Basic Accounting	3.0				3.0	7.0		
Cost Accounting		3.0		1/2 yr	2.0			
Auditing					3.0			
Budgeting	3.0				3.0			3.0
Comptrollership		4.0						
Financial Analysis				Year	3.0	3.0		
Financial Management	3.0		Year		9.0		5.3	
Managerial Accounting					3.0			
TOTALS	9.0	7.0	Year	1.5Yrs	26.0	10.0	5.3	3.0
MATERIAL MANAGEMENT								
Scientific Inventory Management		3.0						
Procurement/Contract Adm		4.0		1/2 yr		3.0		3.0
Material Management	3.0							3.0
Logistics				1/2 yr				
Maintenance								3.0
Transportation								2.0
Negotiation								3.0
TOTALS	3.0	7.0		year		3.0		14.0

Cont'd

School:	Navy(1)		Harvard(2)		Geo.Wash.(3)	Mich.(4)	N.Westrn(5)	AirForce(6)
Course:	Management		Bus. Adm.		Fin Mgt	Procmt Mgt	Transp Mgt	Logistics
Length:	12 Months		2 years		1 year	1 year	1 year	1 year
Degree:	M.S.		M.B.A.		M.B.A.	M.B.A.	M.B.A.	Pending
S.H. For Degree:	60 (Min.)		60		50	60	24-30	40
Curriculum (Semester Hours)	Req	Elec	Req	Elect				
SYSTEMS ANALYSIS								
Systems Development & Anal		4.0						3.0
Data Processing	4.0				3.0	3.0		
Operations Research			year				2.7	
Decision-Making Techniques		3.0						
TOTALS	4.0	7.0	year		3.0	3.0	2.7	3.0
PERSONNEL MANAGEMENT								
Management Psychology	4.0				3.0		2.7	
Pers Adm and Ind Rel	4.0					3.0		
Pers Adm Seminar		3.0						
TOTALS	8.0	3.0			3.0	3.0	2.7	
MARKETING AND RETAILING								
Basic Marketing					3.0	6.0		
Marketing Seminar			year					
TOTALS			year		3.0	6.0		
GENERAL MANAGEMENT								
Organization Theory and Admin	5.0	3.0	year		3.0	6.0	2.7	3.0
Management Engineering			year	year	3.0			
Facilities Planning		3.0						
Military Planning							2.7	3.0

Cont'd

School:	Navy(1)	Harvard(2)	Geo.Wash.(3)	Mich.(4)	N.Westrn(5)	AirForce(6)
Course:	Management	Bus. Adm.	Fin Mgt	Procmt Mgt	Transp Mgt	Logistics
Length:	12 Months	2 years	1 year	1 year	1 year	1 year
Degree:	M.S.	M.B.A.	M.B.A.	M.B.A.	M.B.A.	Pending
S.H. For Degree:	60 (Min.)	60	50	60	24-30	40
Curriculum (Semester Hours)	Req Elect	Req Elect				
Management Policy	4.0					
Management Communication			3.0			4.0
Business Law				3.0		
TOTALS	9.0 6.0	2 yrs year	9.0	9.0	5.4	10.0
TRANSPORTATION						
Transportation Policy					2.7	
Transportation Mgt					2.7	
Transportation Seminar					2.7	
TOTALS					8.1	
THESIS AND REPORT WRITING						
Thesis	4.0					11.0
Report Writing	2.0					
Research Seminar					2.7	
Written Analyses of Cases		year				
TOTALS	6.0	year			2.7	11.0
TOTAL SEMESTER HOURS	64.0	(2) (2) 7 yrs 7.5 yrs	50	(3) 46	43.1	57.0

(1) 1/2 Yr Course is roughly 3 S.H.
(2) Representative Program
(3) Advanced Credit Given for Work Completed Elsewhere
(4) Listed in Term Hours 60 T.H. = 40 S.H.

1. United States Postgraduate School Catalogue for 1964-1965 (Monterey: United States Postgraduate School, 1964), p.35-36.

2. Harvard University Graduate School of Business Administration 1964-1965 (Cambridge: Harvard University, 1964), p. 33-72.

3. The George Washington University Bulletin, 1964-1965 (Washington, D.C.: The George Washington University Press, 1964), p. 168-173.

4. The University of Michigan Graduate School of Business Administration, 1965-1966 (Ann Arbor: University Press, 1965), p. 17-35.

5. The Graduate School Northwestern University Bulletin, 1964-1965 (Chicago: Northwestern University Press, 1964), p. 21-55.

6. Air Force Institute of Technology, Air University, United States Air Force, 1963-1965 (Wright-Patterson Air Force Base: United States Air Force, 1963), p. 17-18.

HARVARD

ADVANCED MANAGEMENT PROGRAM (13 WEEKS)[4]

Business Policy

Marketing Management

Accounting and Financial Policy

Finance

Business History

Problems in Labor Relations

Business and World Society

Human Behavior in Organizations

Mathematical Concepts for Decision Making

Simulation

PROGRAM FOR MANAGEMENT DEVELOPMENT (16 WEEKS)[5]

The course areas of the Program for Management Development are four in number.

General Management, Including Finance

Quantitative Analysis

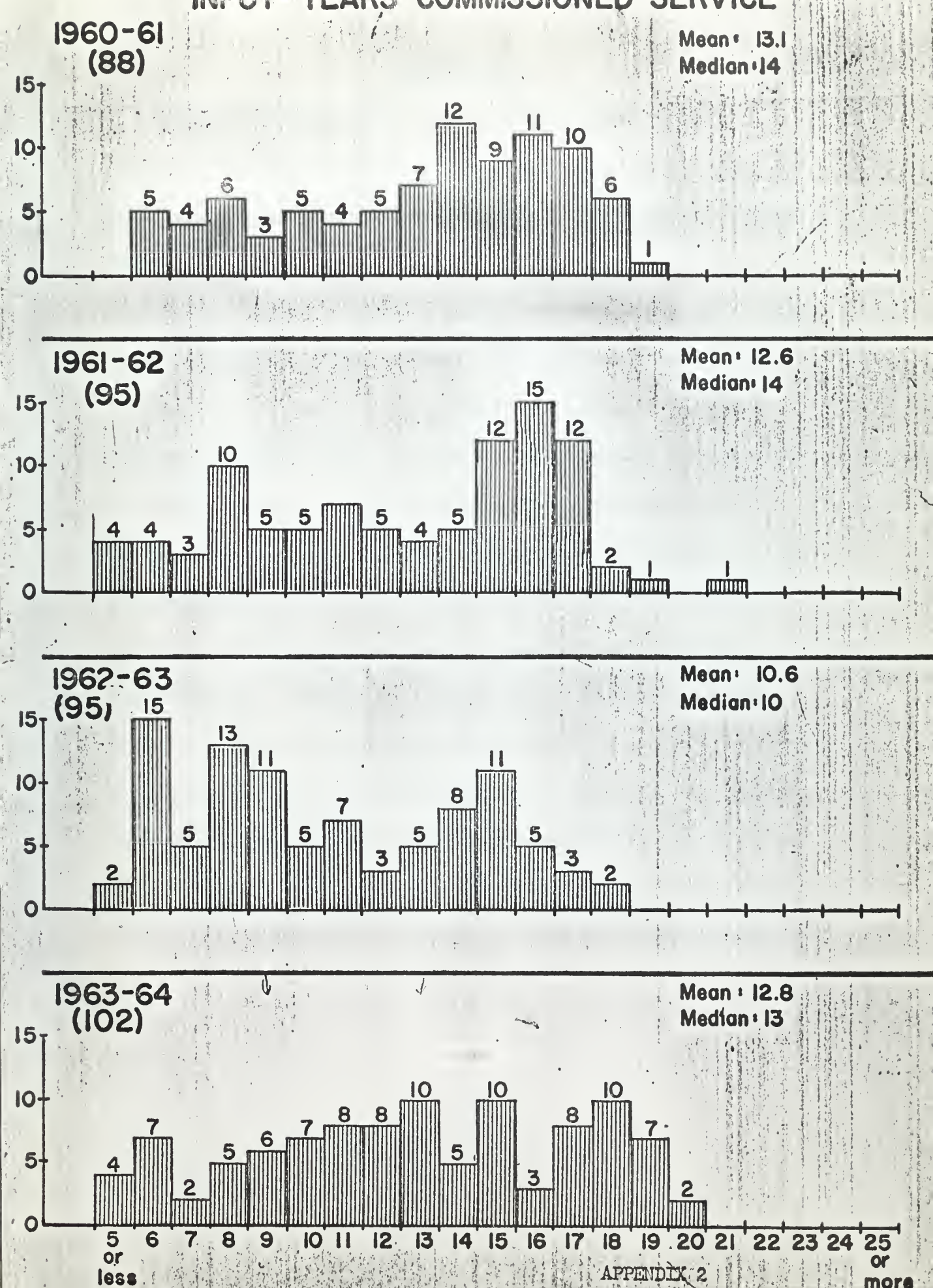
Human Behavior in Organizations

Issues in Business

[4]Management Programs at the Harvard Business School (Boston: Harvard University, 1965), pp. 19-28.

[5]Ibid., pp. 29-34.

MANAGEMENT CURRICULUM
INPUT-YEARS COMMISSIONED SERVICE



APPENDIX III

On page 18 of this report, it was indicated that several leaders in the Navy contributed to the founding of the Management School concept for postgraduate education in Management. Among those most active in the Bureau of Naval Personnel were Commanders Richard Williams and Ben Worcester of Pers C-1. Rear Admiral Roy Benson, USN, scheduled the first formal hearing on the objectives, programs and plans for a management education program at Monterey before his staff on approximately 25 July 1956. W. Howard Church, who had developed the initial plans for the school and who had been offered the position of Co-Director, made this presentation. The Hon. Prentis Kenyon, one of the top aides to Pers C, Dr. Jack Lang and many others give assistance and encouragement. Immediately following the establishment of the School at Monterey, the Chief of Naval Personnel received a number of congratulatory letters and messages from various Bureau Chiefs and from the Secretary of the Navy which testified to their belief in the necessity for the program and their willingness to assist in the support and development of postgraduate education in management.

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Managerial education of naval officers /
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